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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/322,770	05/28/99	SHINOGLA	R 87-146-R

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QM02/0508

EXAMINER

GIMIE, M

ART UNIT

PAPER NUMBER

3747

DATE MAILED:

05/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/322,770

Applicant(s)

SHINOGLA ET AL.

Examiner

Mahmoud M Gimie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 46-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-31 is/are allowed.
- 6) ☒ Claim(s) 46-48, 52, 53, 57 and 58 is/are rejected.
- 7) ☒ Claim(s) 49-51, 54-56 and 59-61 is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 19.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 46-48 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (5,653,210).

Fischer et al discloses method of controlling a final controlling element; in particular for influencing the fuel injected into an internal combustion engine. The an apparatus controlled by the control method is of a type having measurable resultant characteristics at a plurality of operating conditions when controlled in accordance with a control signal comprising the steps of:

measuring at least one resultant characteristic associated with the apparatus at a plurality of operating conditions determining a control signal adjustment as a function of a variation between the measured resultant characteristics and nominal resultant characteristics (set point) and as a function of an operating condition of the apparatus; and inputting the control signal adjustment data into an electronic control module; establishing a control communication link between the apparatus and the electronic module (130); and controlling the apparatus in accordance with an adjusted control signal that is a function of a nominal control signal , an operating condition and the control signal adjustment data.

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Fischer et al does not describe the method as a method of preparing for shipment [of] an apparatus with the disclosed characteristics. Nevertheless, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone, MPEP 2111.02. In this instance, the preamble merely recites the intended use of the method.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Fischer et al by further reciting the intended use of the method of adjusting a control signal to influence fuel injected into an internal combustion engine. The motivation to do so would have been to market the claimed subject matter.

With regard to claim 57, the output signal SBI from the needle-motion sensor 105 is means of reading data recorded on the apparatus (fuel injector) that is indicative of a control signal adjustment. The control module corresponds to module 92.

3. Claims 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al (5,653,210) in view of William K. Toboldt (Diesel Fundamental s, Service, and Repair).

Fischer et al discloses all the limitations as applied to claims to 46-48 and 52-53 above, except a data recording attached to the body of a fuel injector.

William K. Toboldt, figure 8-82 shows a data recording attached to the body of a fuel injector. For actuatable mechanism, see figure 20-26.

Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Fischer et al by recording data on the body of a fuel injector as shown by Toboldt. The motivation to do so would have been to easily identify the fuel injection device.

Allowable Subject Matter

4. Claims 49-51, 54-56 and 59-61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art shows fuel injection systems.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. For example the newly added limitations necessitated the present rejections. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahmoud M Gimie whose telephone number is 703-305-1037. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 703-308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7766 for regular communications and 703-308-7766 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

M Gimie, Examiner
May 7, 2001


Henry C. Yuen
Supervisory Patent Examiner
Group 3700